

FIGURE 1

SCHEMATIC FLOWCHART OF:
OPEN END MUTUAL FUND INDEX COMPUTER PROGRAM

GENERAL DATA PROCESSING COMPUTER SYSTEM: MEMORY STORAGE
CONTAINS MASTER DATABASE OF OPEN END MUTUAL FUND STATISTICS
PREFERRED SPECIFICATION OF COMPUTER: CDROM DRIVE, MONITOR
HARD DRIVE CONTAINING 420 MEGABYTES 8 MEGABYTES RAM, 486 CPU

— FIGURE
1A

ELIMINATE THOSE FUNDS IN MASTER DATABASE WHERE
FUNDS ARE MARKED "NOT AVAILABLE FOR PURCHASE".
PUT REMAINING FUNDS IN NEW DATABASE: "DATABASE #1"

— FIGURE
1B

ELIMINATE ALL FUNDS IN DATABASE #1 WHERE
ASSET SIZE IS NOT EQUAL TO "USER
DEFINED" STORING REMAINING FUNDS IN NEW
DATABASE: "DATABASE #2"

— FIGURE
1C

SEARCH DATABASE "DATABASE #2" FOR THOSE
FUNDS WHERE CATEGORY OF INVESTMENT STYLE
="USER DEFINED" AND PLACE IN NEW
DATABASE: "DATABASE #3"

— FIGURE
1D

FIGURE 1F

FIGURE 1E

SEARCH DATABASE#3 AND SELECT
FUNDS WHERE RISK OVER TIME
(T) < AVERAGE OF ALL FUNDS IN
DATABASE#3 WHERE TIME(T) =
"USER DEFINED" AND RISK =
"USER DEFINED". STORE SELECTED
FUNDS IN NEW DATABASE NAMED:
DATABASE #5

SEARCH DATABASE #3; SELECT THOSE
FUNDS WHERE RETURN OVER TIME (T) >
AVERAGE OF ALL FUNDS IN DATABASE #3
WHERE TIME (T) = "USER DEFINED" AND
STORE IN NEW DATABASE NAMED:
"DATABASE #4"

Figure 1 continued

COMBINE DATABASE "4" AND DATABASE "5" INTO NEW
DATABASE NAMED: "INDEX"

- FIGURE
1G

CREATE CONSTANT "NUMBER"; "NUMBER" = "USER
DEFINED" TOTAL NUMBER OF OPEN END MUTUAL FUNDS
TO BE INCLUDED WITHIN THE DATABASE "INDEX"

- FIGURE
1H

CREATE CONSTANT NAMED "CALCULATION" WHERE
"CALCULATION" = "USER DEFINED" CHOICE OF
<EQUALLY PRICE WEIGHTED>, <CAPITALIZATION
WEIGHTED>, <GEOMETRICALLY WEIGHTED>, OR
<CUSTOM WEIGHTED>

- FIGURE
1I

CREATE FORMULA: "OPTIMAL RISK/RETURN (T)"
WHERE "OPTIMAL RISK/RETURN (T)" = "TOTAL
RISK/RETURN(T)" - "TOTAL RISK/RETURN (T-1)"
IF "TOTAL RISK/RETURN (T)" < "TOTAL
RISK/RETURN T-1" THEN REPEAT UNTIL
"TOTAL RISK/RETURN" YIELDS A GROUP OF
FUNDS WHERE NUMBER = "NUMBER" AND NO OTHER
COMBINATION OF FUNDS YIELDS A LOWER
RISK/RETURN RATIO OVER TIME (T) AND NAME
"FINAL INDEX"

- FIGURE
1J

CREATE FORMULA "TOTAL RISK/RETURN" WHERE
"TOTAL RISK RETURN" = SUM (TOTAL RISK FOR
ALL FUNDS IN INDEX/TOTAL RETURN FOR ALL
FUNDS IN INDEX) FOR TIME PERIOD (T)

- FIGURE
1K

PRINT OUT A CHART OF "FINAL INDEX" FOR
TIME (T). RETURN TO FIGURE 1A TO REPEAT

- FIGURE
1L

PROCESS FOR INTRA-DAY TRADING OF SECURITIZED
OPEN END MUTUAL FUND,
INDEX AND LINKED DERIVATIVE SECURITIES

